

THERMOBREEZE



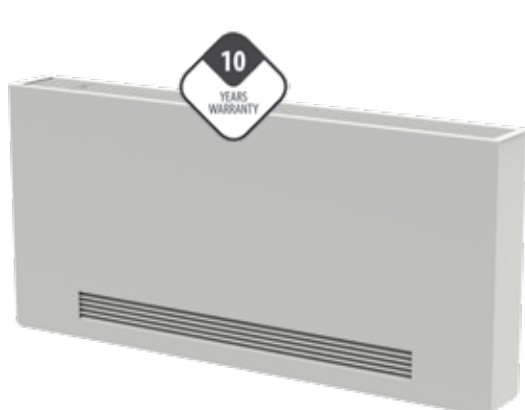
DISCOVER THERMOBREEZE

General information

THERMOBREEZE

The ThermoBreeze is an advanced heat pump radiator that delivers a powerful, even airflow thanks to its silent tangential fan. This intelligent unit is specifically designed for ultra-low-temperature heating and active cooling, making it the perfect complement to any heat pump system. Compact, energy-efficient, and quick to respond — for year-round comfort.

Product:	Decorative ultra-low-temperature heat pump radiator with integrated controls and a tangential fan for high output. 2-pipe version. For wall mounting.
Finishing:	Decorative casing with integrated, recessed thermostat
Pre-installed:	Power supply, thermostat, stainless steel filter
Fan:	Tangential fan with vibration damping and 0–10 V control. Start-stop safety during filter mounting and removal
Also supplied:	Motorized actuator, low-resistance thermostatic valve, adjustable and isolatable lockshield valve, condensate tray, opening clip, locking screws, screws, plugs, and installation and user manual
Control:	Digital thermostat with temperature setting and Modbus. Heating, cooling, and fan modes. Fan speed is automatically controlled or manually adjustable in 5 levels.
Cooling:	In combination with a compatible heat pump. Standard-equipped for cooling below (Deep Cooling) or above (Light Cooling) the dew point. No dew point protection is included.
Heat exchanger:	With corrugated aluminium fins. Integrated air vent on flow and return.
Sound pressure:	The sound levels of the ThermoBreeze radiators can be found in the technical documentation
Connections:	2 x ½" internal thread, right-hand connection. Centre connection optional (not suitable for cooling below the dew point (Deep Cooling)).
Electrical connection:	Power supply via 230 VAC mains, to be connected through screws in the built-in 24 VDC power supply. Inside the casing, an opening is provided for cable entry if the power cable comes directly out of the wall into the casing. Provide a minimum cable length of 300 mm from the wall outlet. If the power supply is located outside the radiator, the cable must enter the casing through the lower left side.
Packaging:	Each heat pump radiator is packaged in high-quality cardboard. A label describes the radiator characteristics: type – height – length.
Warranty:	10 years for the radiator and 2 years for the electrical components, as long as the installation instructions have been followed and Stelrad's warranty conditions have been met.
Paint process:	The casing is degreased, phosphated and coated in Stelrad NT110 Papyrus white as standard
Colours:	Stelrad NT110 Papyrus white textured finish + 35 different Stelrad colours and about 200 RAL-colours are possible
Max. operating pressure:	10 bar
Min./max. operating temp.:	5 – 65 °C
Conformity:	in accordance with EN16430 and EN12102 (EN3741)
Technical data:	Voltage 220-240 V ~50 Hz, IPX0, Class I
Max. electrical power:	19 – 30 – 35 – 42 W
Standby power:	0.75 W
Height:	465 mm
Lengths:	800 – 1,000 – 1,200 – 1,400 mm
Depth:	120 mm



Heat outputs according to EN16430

On the label: Art. 9101 0465 50 1000
THERMOBREEZE T50: 9101 — H465 — T50 — L1000



H 465	Position	2	4	6	8	10	t°-regimes
	W	600	1,165	1,561	1,868	2,017	45 / 40 / 20 °C
	n	1.13	1.03	1.02	1.02	1.02	
	W	284	651	961	1,307	1,408	7 / 12 / 28 °C
	n	0.87	0.92	0.9	0.91	0.94	
	kg	16.02					
	l	0.89					

W=heat output per meter / kg=weight per meter / l=content per meter / n=exponent
The manufacturer reserves the right to alter any of the specifications shown in this document without prior notice.

H 465	t° _{in} :	t°-regimes		t°-regimes			
	t° _{out} :	7	17	35	45	55	
	t° _{ambient} :	12	19	30	40	45	
		28		20			
Length & Art. N°.	Position	Cooling (Watt)		Heating (Watt)			Sound pressure level * dB(A)
L 800 Art. N°. 91010465500800	2	203	119	220	428	593	9.3
	4	465	264	454	832	1,120	25.8
	6	687	396	613	1,115	1,494	35.0
	8	933	535	734	1,334	1,787	44.0
	10	1,006	566	791	1,441	1,932	50.7
L 1000 Art. N°. 91010465501000	2	284	167	308	600	830	12.8
	4	651	369	635	1,165	1,568	27.5
	6	961	554	858	1,561	2,092	36.9
	8	1,307	748	1,027	1,868	2,502	45.1
	10	1,408	792	1,107	2,017	2,705	51.5
L 1200 Art. N°. 91010465501200	2	366	214	396	771	1,067	16.2
	4	837	474	817	1,498	2,016	29.2
	6	1,236	712	1,103	2,007	2,690	38.7
	8	1,680	962	1,321	2,401	3,217	46.2
	10	1,811	1,018	1,423	2,593	3,478	52.2
L 1400 Art. N°. 91010465501400	2	447	262	485	942	1,305	19.7
	4	1,023	580	998	1,831	2,464	30.9
	6	1,510	870	1,349	2,453	3,287	40.6
	8	2,054	1,176	1,614	2,935	3,932	47.3
	10	2,213	1,244	1,740	3,170	4,251	53.0

Note: In auto mode, the maximum setting is by default 6 for heating, and 8 for cooling.

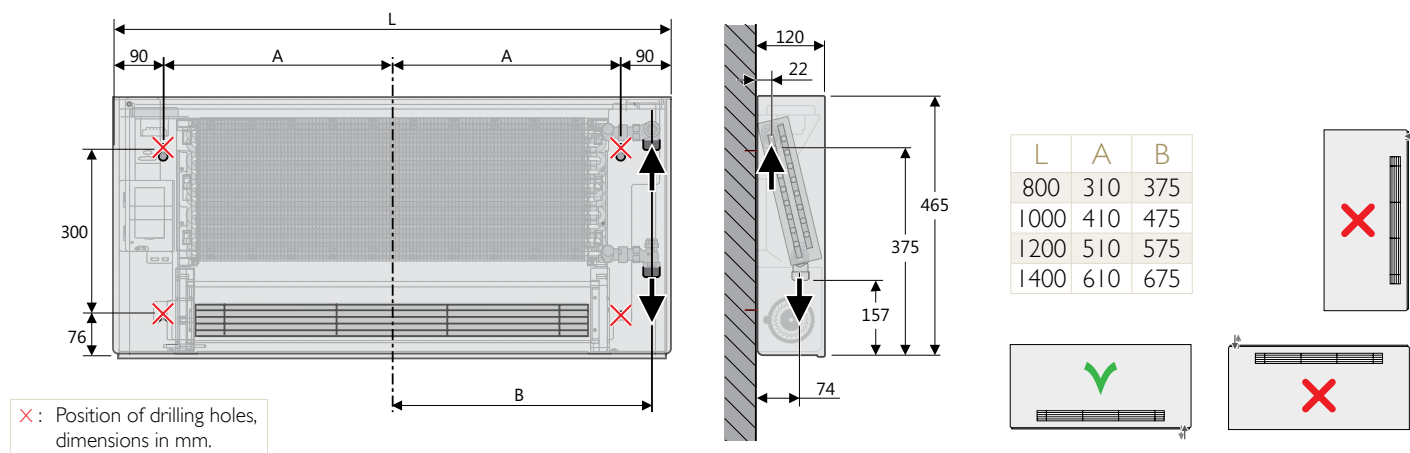
* Sound pressure levels are calculated at a distance of 1 m, based on measured sound power according to EN12102.
Actual values may vary depending on the installation environment.

You can find the manual on our website
under the technical data of ThermoBreeze or via the QR code:



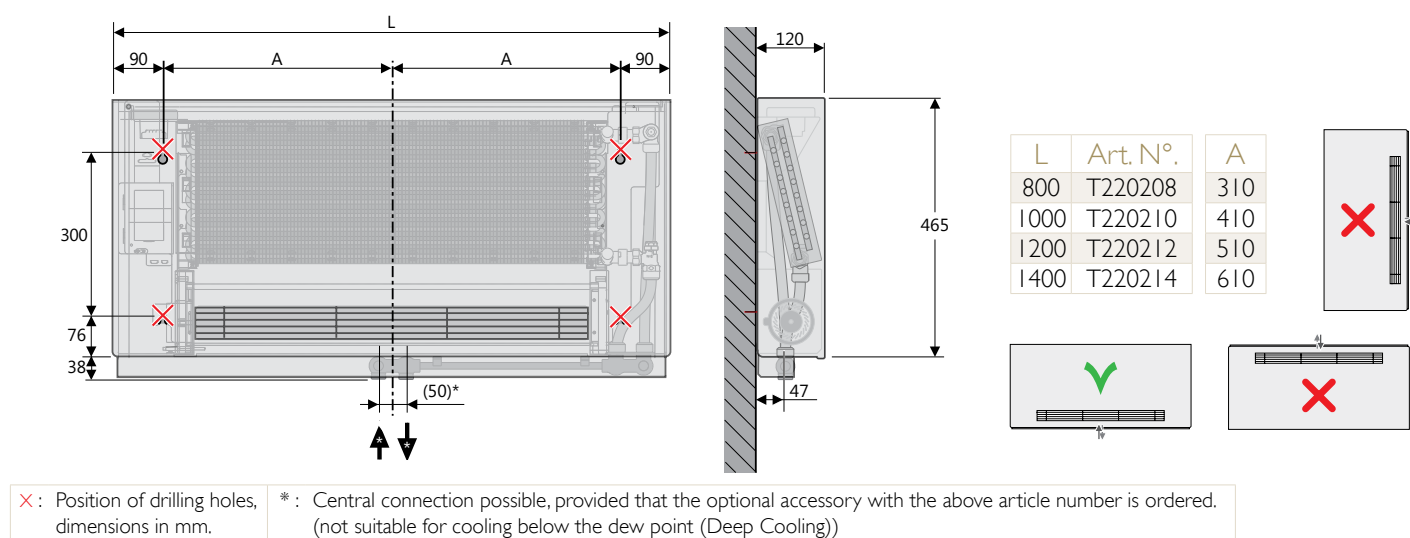
MOUNTING AND CONNECTION

Bottom right connection - 2x ½" int.

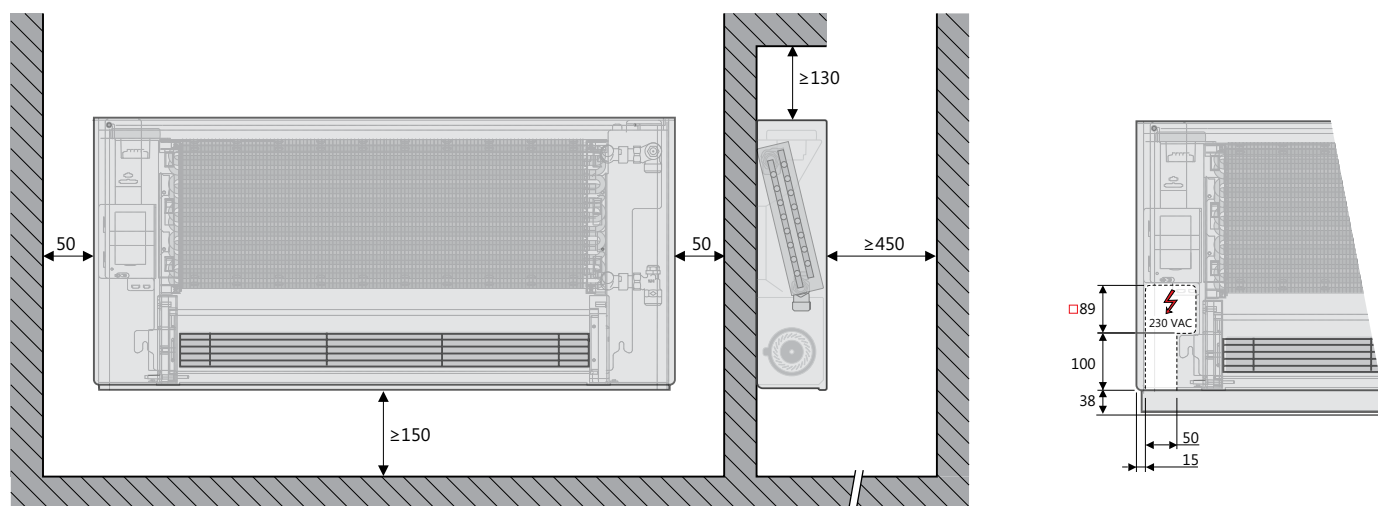


CENTRE CONNECTION - 2x ¾" ext. eurocone

The optional centre connection is not suitable for cooling below the dew point (Deep Cooling).



INSTALLATION AND ELECTRICAL CONNECTION



24VDC screw-type power supply on the left-hand side, with a 230 VAC connection, cable entry via an opening underneath, with a minimum cable length of 300 mm from the wall outlet.

For a power connection outside the radiator, the cable must be routed at the lower left side of the casing.

SOUND PRESSURE

The fan of the ThermoBreeze can be operated in automatic or manual mode. In automatic mode, the fan speed is regulated according to the difference between the desired and the actual room temperature. The maximum speed in this mode is limited to reduce noise. The maximum speed of the automatic mode can be adjusted in the parameters of the thermostat.

If increased heat output is required, a higher fan speed can be selected in manual mode. For situations where minimal noise production is required – for example in a bedroom – the manual mode allows the fan to be set to a low level, ensuring that the sound level is kept to a minimum.

The average sound pressure level in automatic mode of the ThermoBreeze, length 800 mm, is 26 dB(A) at a distance of 1 metre.

HOW LOUD IS A GIVEN DECIBEL LEVEL?

dB(A)	Examples
20	Morning silence in a forest
26	ThermoBreeze heat pump radiator
30	Whispering
35	A gentle rain shower with closed windows
42	Library

COOLING

In combination with a suitable heat pump, our heat pump radiator is suitable for cooling both above and below the dew point. The cooling mode can be selected via the control panel.

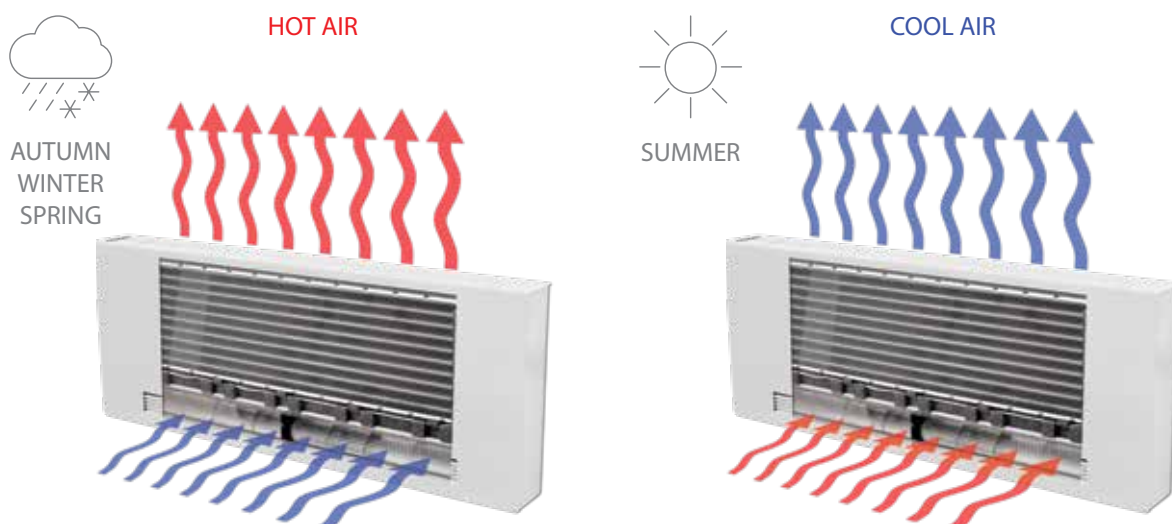
When the desired room temperature is lower than the actual room temperature and the supply water temperature is below 22 °C, the ThermoBreeze is activated automatically.

The unit is not equipped with dew point monitoring. For cooling above the dew point (Light Cooling), the minimum water temperature can be increased in the parameters via the control panel in order to reduce the risk of condensation.



A calculation tool for determining the dew point based on room temperature and humidity is available at: <https://www.stelrad.eu/en-gb/dew-point>

For cooling below the dew point (Deep Cooling), it is necessary that all pipes are insulated. In addition, a drain with siphon must be provided (drain connection $\varnothing$ 16 mm) for condensate discharge via the supplied condensate tray. The optional centre connection is not suitable for cooling below the dew point (Deep Cooling).

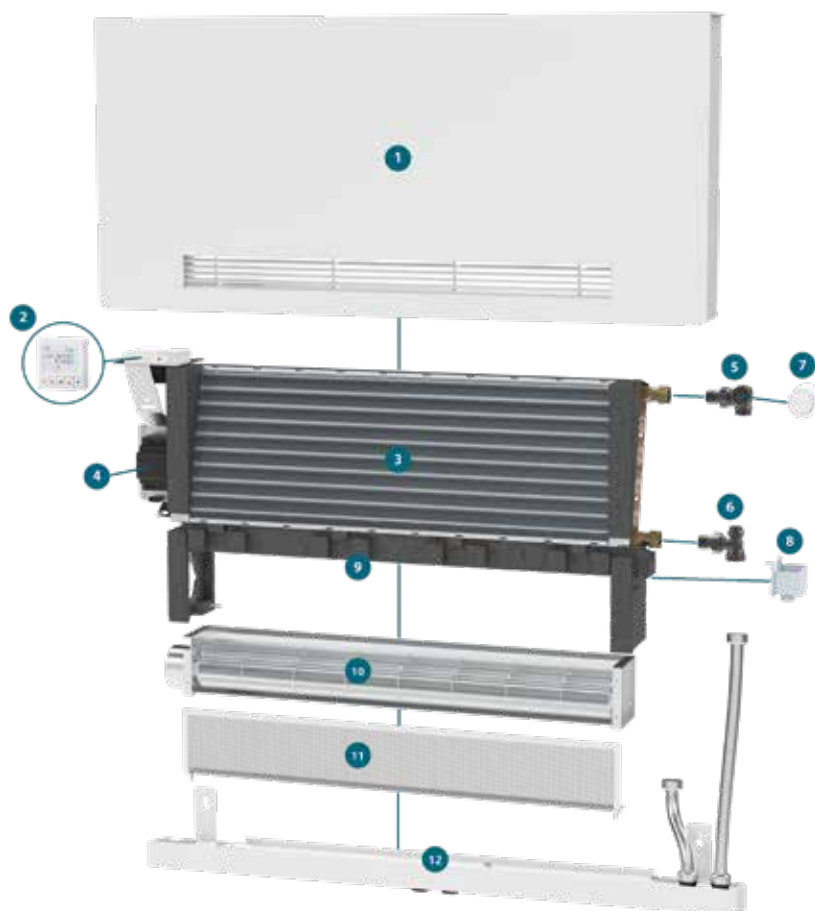


TECHNICAL DATA

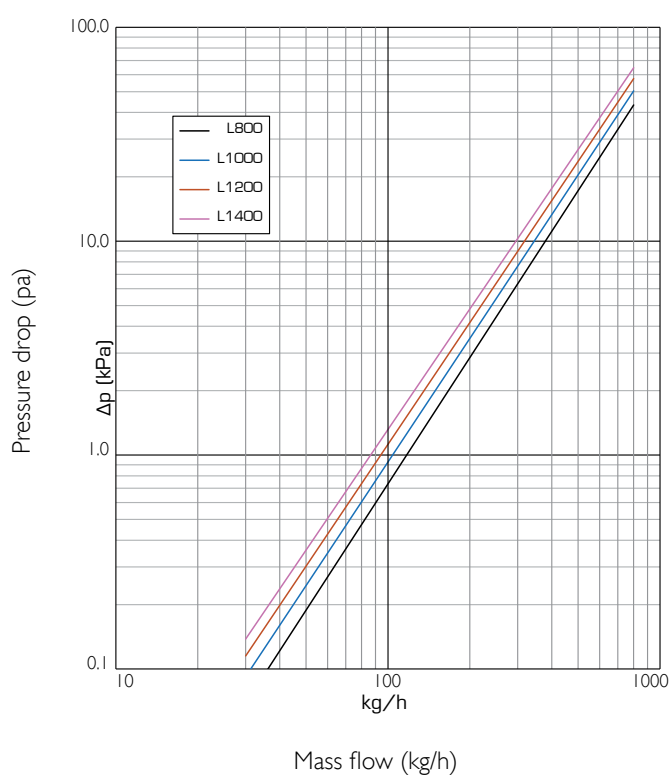
		Length Art. N°.		L 800 91010465500800	L 1000 91010465501000	L 1200 91010465501200	L 1400 91010465501400	
Cooling capacity	7/12/28 °C	Min.	W	203	284	366	447	
		Med.	W	687	961	1,236	1,510	
		Max.	W	1,006	1,408	1,811	2,213	
Heat output	45/40/20 °C	Min.	W	428	600	771	942	
		Med.	W	1,115	1,561	2,007	2,453	
		Max.	W	1,441	2,017	2,593	3,170	
Housing		Colour		NT110 Papyrus white	NT110 Papyrus white	NT110 Papyrus white	NT110 Papyrus white	
		Material		Steel plate	Steel plate	Steel plate	Steel plate	
Dimensions	Unit of measurement	Height	mm	465	465	465	465	
		Length	mm	800	1,000	1,200	1,400	
		Overall depth	mm	120	120	120	120	
	Shipping package	Height	mm	505	505	505	505	
		Length	mm	820	1,020	1,220	1,420	
		Depth	mm	135	135	135	135	
Weight		Unit of measurement	kg	13.6	16	18.4	20.9	
Packaging		Material		Corrugated cardboard	Corrugated cardboard	Corrugated cardboard	Corrugated cardboard	
		Weight	kg	0.96	0.126	0.132	0.168	
Water circuit	Heat exchanger	Quantity		1	1	1	1	
		Volume	L	0.8	1	1.2	1.4	
	Pipes	Diameter	in	9.52	9.52	9.52	9.52	
		Material		Copper	Copper	Copper	Copper	
	Pressure - heating	Max.	bar	10	10	10	10	
	Mass flow - heating 45/40/20 °C	Min.	kg/h	74	103	133	162	
		Med.	kg/h	192	268	345	422	
		Max.	kg/h	248	347	446	545	
	Mass flow - cooling 7/12/28 °C	Min.	kg/h	35	49	63	77	
		Med.	kg/h	118	165	213	260	
		Max.	kg/h	173	242	311	381	
	Sound pressure level (at 1 m distance) According to EN12102 (EN3741)		Min.	dB(A)	9.3	12.8	16.2	19.7
Med.			dB(A)	35	36.9	38.7	40.6	
Max.			dB(A)	50.7	51.5	52.2	53	
Operating range	Heating – water circuit	Min.	°C	20	20	20	20	
		Max.	°C	65	65	65	65	
	Cooling – water circuit	Min.	°C	5	5	5	5	
		Max.	°C	25	25	25	25	
	Ambient temperature	Min.	°C	5	5	5	5	
		Max.	°C	55	55	55	55	
Control system	Built-in thermostat			Including	Including	Including	Including	
Regulation system	Integrated in the inner unit			Yes	Yes	Yes	Yes	
Filter				Including	Including	Including	Including	
Power supply	Protection class				Class I - IPX0	Class I - IPX0	Class I - IPX0	Class I - IPX0
	Grounding connection				Required	Required	Required	Required
	Voltage supply	Frequency	Hz	~50	~50	~50	~50	
		Voltage	V	220-240	220-240	220-240	220-240	
Output		Max.	W	19	29	33	42	
		Min.	W	0.75	0.75	0.75	0.75	

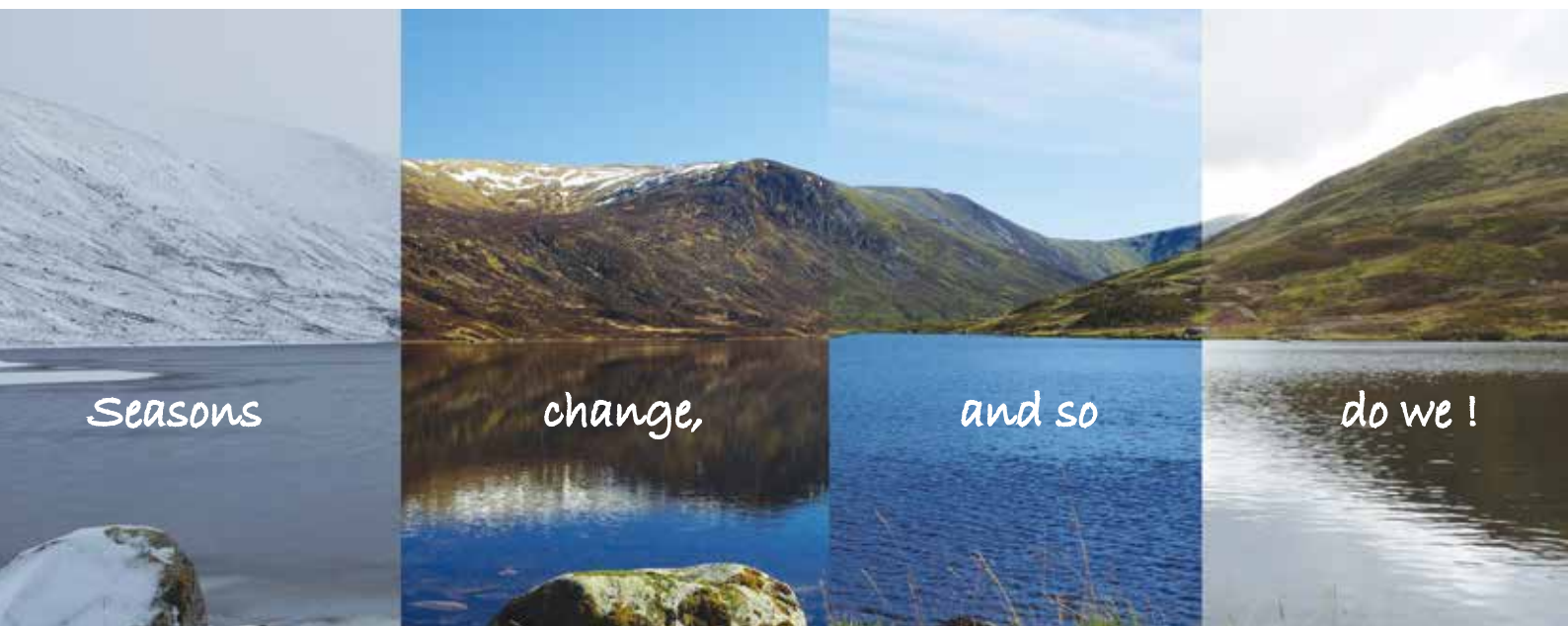
CONVECTOR COMPONENTS

- 1 Enclosure
- 2 Thermostat
- 3 Heat exchanger
- 4 Power supply
- 5 Thermostatic valve
- 6 Adjustable and closable foot valve
- 7 Motorised actuator
- 8 Condensate tray
- 9 EPP parts
- 10 Tangential fan
- 11 Stainless steel dust filter
- 12 Centre connection (not for Deep Cooling, to be ordered separately)



PRESSURE DROP





Austria • Belarus • Belgium • Cyprus • Czech Republic • Estonia • France • Germany • Greece • Ireland
Lithuania • Luxemburg • Poland • Portugal • Spain • The Netherlands • Tunisia • Ukraine • United Kingdom

THE NETHERLANDS

Caradon Stelrad B.V. | Kathagen 30 | 6361 HG Nuth

WWW.STELRAD.EU

